

What is claimed is:

1. A method for purifying an immunosuppressant protein (HISP) the method comprising:
  - a) obtaining supernatant from hNT cells;
  - b) exposing the supernatant to preparative polyacrylamide gel electrophoresis to produce 20 isoelectric fractions, including active isoelectric fraction #10;
  - c) placing the active isoelectric fraction on a Blue Sepharose column to bind albumin; and
  - d) collecting the free fraction containing the concentrated, isolated HISP.
2. The compound produced by claim 1.
3. A method of treating inflammation, the method comprising administering an effective amount of an immunosuppressant protein (HISP).
4. An isolated immunosuppressant protein (HISP), said protein comprising an anionic protein
  - having a molecular weight of 40-100 kDa;
  - having an isoelectric point of about 4.8;
  - being obtained from hNT cell supernatant;
  - not being obtained from NCCIT embryonal carcinoma cells, T98G glioblastoma cells or THP-1 monocytic leukemia cells;
  - losing activity when treated with heat, pH2, pH11, or mixed with trypsin or carboxypeptidase;
  - losing no activity when incubated with neuraminidase;
  - being capable of suppressing proliferation of responder peripheral blood mononuclear cells in allogeneic mixed lymphocyte cultures;
  - being capable of suppressing T-cell proliferation and IL-2 production in response to phorbol 12-myristate 13-acetate (PMA), ionomycin and concanavalin-A;
  - being capable of maintaining T cells in a quiescent G<sub>0</sub>/G<sub>1</sub> state without lowering their viability;
  - not binding to heparin-sepharose CL-B gel;
  - not binding to albumin-binding resin Blue Sepharose;
  - concentrating with YM10 ultrafiltration; and
  - not acting through the T-cell receptor-CD3 complex or via altered accessory signal cells.

5. A method of treating inflammation, said method comprising administering an effective amount of hNT neuronal cells.